

D6104 003

Work Order ID 141324

141324

Page 1

Wednesday, February 03, 2016 4:30:04 PM

Item ID: DSK076

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: D2891-1 Turning Detail

Start Date: 2/3/2016

Start Qty: 10.00

10

Cust Item ID:

Required Date: 2/3/2016

Req'd Qty: 10.00

10

Customer:

Reference:

Approvals:

Process Plan: MJS

Date: FEB 04 2016

Cooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr

Revision Nbr

DSK076

Rev A

100

0.01

100

Doosan

DOOSAN LATHE

Memo

0.08

Doosan Lathe

Turn blank for as per Folio FA046
DT8671

15

0

DAS

45

9-89

2016-3-18

110

0.00

110

QC

QC2- Inspect parts off machine FAI/FAIB

Memo

0.00

Quality Control

15

0

DAS

45

9-89

2016-3-18

120

0.00

120

QC

QC8- Inspect parts - second check

Memo

0.00

Quality Control

15

0

DAS

14

9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QS1042) Approval	
Description Work Order Deviation		Disposition		Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
		OTHER : ☐			

Work Order ID 141324

Wednesday, February 03, 2016 4:30:04 PM

141324

Page 2

Item ID: DSK076

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: D2891-1 Turning Detail

Start Date: 2/3/2016 Start Qty: 10.00

10

Cust Item ID:

Required Date: 2/3/2016 Req'd Qty: 10.00

10

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***
Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130		0.00							DAS
130	Packaging					15	0		14
Packaging	Memo	0.00							9-39
Packaging	LOCATION: MAT060								
140	QC21- Final Inspection - Work Order Release	0.00							
140						MCS		MAR 2 1 2016	
QC	Memo	0.02							
Quality Control									

MCS MAR 2 1 2016

H/FC

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QS1042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

Picklist Print

Wednesday, February 03, 2016 4:30:03 PM

Page 1

Work Order ID: 141324

141324

Parent Item: DSK076

DSK076

Parent Item Name: D2891-1 Turning Detail

Start Date: 2/3/2016

Required Date: 2/3/2016

Start Qty: 10.00

Required Qty: 10.00

Comments: IPP rev A. 08.03.13 new issue EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6104-003		Manufactured	No				Each	24.0000		10			

D6104-003

Round Billet, 17-4

Location

Loc Qty

Loc Code

MAT043

24

138596

4

140768

20

4
11

DAS

45

9-89

2016-3-17

15x

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐				
Date :	Step #:	QTY Effective :			MRB (QS1042) Approval	
Description Work Order Deviation		Disposition				
					Completed By	
					Lead hand / Supervisor Approval Verification	
					QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐				
OTHER : ☐						

DART AEROSPACE LTD		Work Order:	141324
Description: Turning Detail for D2891-1		Part Number:	DSK076
Inspection Dwg: DSK076	Rev: A	Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	5
Lathe Section								
A	2.274	2.279		2.277	2.277	2.2775	2.2775	2.2775
B	3.702	3.722		3.712	3.712	3.713	3.712	3.715
C	2.564	2.584		2.571	2.574	2.574	2.574	2.574
D	0.718	0.738		0.728	0.727	0.727	0.727	0.727
E	0.090	0.110		0.100	0.100	0.100	0.100	0.100
F	2.464	2.484		2.474	2.473	2.473	2.473	2.473
G	2.029	2.049		2.036	2.036	2.034	2.035	2.035
H	2.964	2.984		2.9728	2.975	2.975	2.975	2.975
I	0.913	0.933		0.923	0.922	0.923	0.923	0.923
J	0.022	0.042		0.032	0.032	0.032	0.032	0.032
K	0.090	0.110		0.099	0.098	0.099	0.099	0.099
L								
M								
N								
O								
P								

Measured by:	DAS 45 9-89	Date:	2016-3-18
Audited by:	14 9-39	Date:	16/03/20
Prototype Approval:		Date:	

Rev	Date	Change	Revised by	Approved
A	08.04.22	New Issue	KJ/JLM	

DART AEROSPACE LTD		Work Order:	141324
Description: Turning Detail for D2891-1		Part Number:	DSK076
Inspection Dwg: DSK076		Rev: A	Page 1 of 1

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	#6	#7	#8	#9	#10
Lathe Section								
A	2.274	2.279		2.277	2.277	2.2765	2.277	2.277
B	3.702	3.722		3.714	3.710	3.712	3.712	3.712
C	2.564	2.584		2.574	2.574	2.574	2.574	2.574
D	0.718	0.738		0.727	0.727	0.727	0.727	0.727
E	0.090	0.110		0.101	0.101	0.101	0.101	0.101
F	2.464	2.484		2.474	2.474	2.474	2.474	2.474
G	2.029	2.049		2.036	2.036	2.036	2.036	2.036
H	2.964	2.984		2.974	2.974	2.974	2.974	2.974
I	0.913	0.933		0.923	0.923	0.923	0.923	0.923
J	0.022	0.042		0.032	0.032	0.032	0.032	0.032
K	0.090	0.110		0.099	0.099	0.099	0.099	0.099
L								
M								
N								
O								
P								

DAS
45

Measured by: 9-89 DAS Date: 2011-3-19

Audited by: 14 Date: 1/6/03/20

Prototype Approval: 9-30 Date:

Rev	Date	Change	Revised by	Approved
A	08.04.22	New Issue	KJ/JLM	

DART AEROSPACE LTD		Work Order:	141324
Description: Turning Detail for D2891-1		Part Number:	DSK076
Inspection Dwg: DSK076	Rev: A	Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	(1	1 2	1 3	1 4	1 5
Lathe Section								
A	2.274	2.279		2.277	2.277	2.277	2.277	2.277
B	3.702	3.722		2.709	2.710	2.712	2.712	2.712
C	2.564	2.584		2.574	2.573	2.573	2.573	2.573
D	0.718	0.738		0.727	0.727	0.727	0.727	0.727
E	0.090	0.110		0.101	0.101	0.101	0.101	0.101
F	2.464	2.484		2.473	2.473	2.473	2.473	2.473
G	2.029	2.049		2.036	2.037	2.037	2.037	2.037
H	2.964	2.984		2.974	2.974	2.974	2.974	2.974
I	0.913	0.933		0.923	0.923	0.923	0.923	0.923
J	0.022	0.042		0.032	0.032	0.032	0.032	0.032
K	0.090	0.110		0.099	0.099	0.099	0.099	0.099
L								
M								
N								
O								
P			DA					

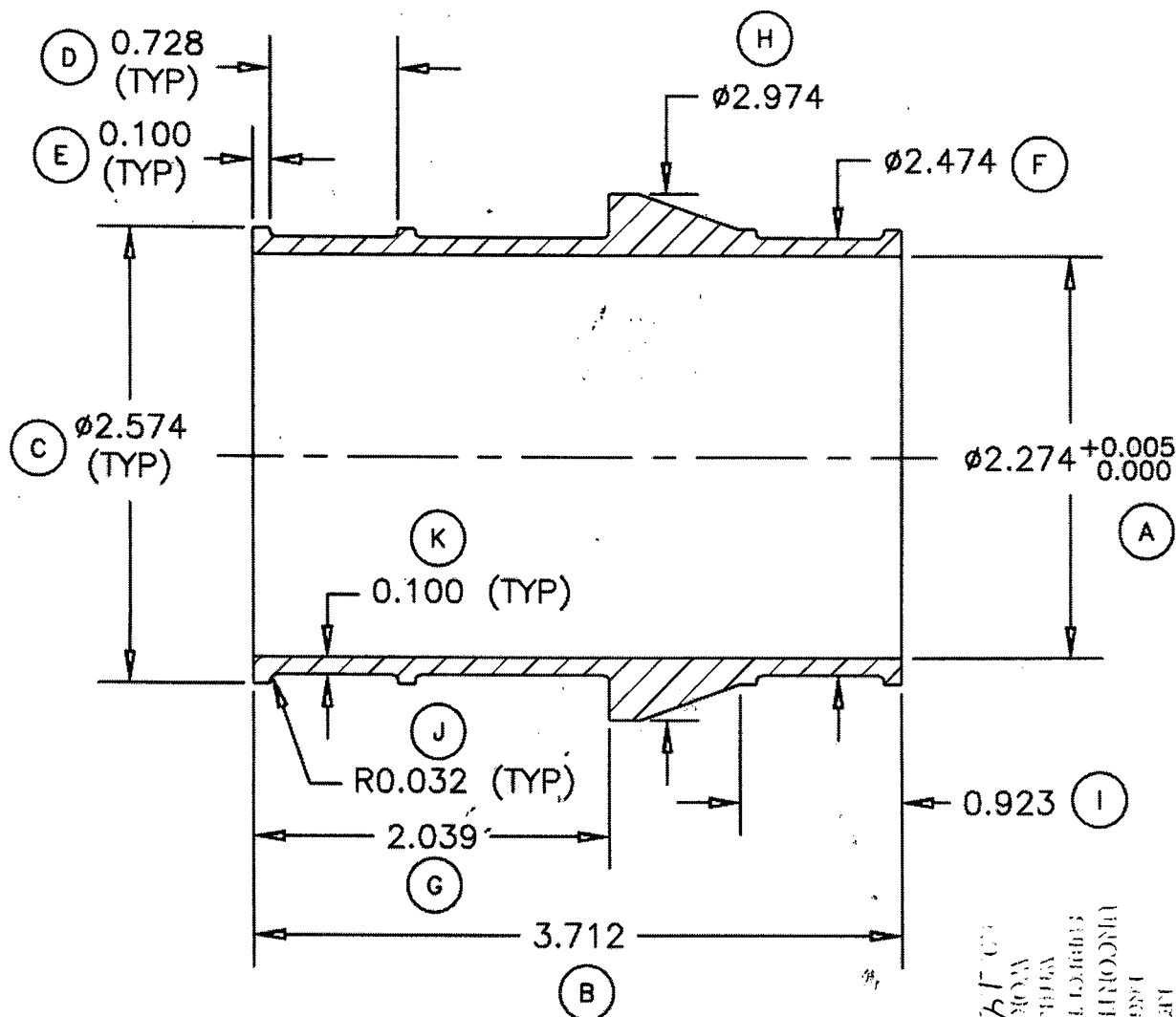
Measured by:	DA 45 9-86	Date:	2016-3-19
Audited by:	DAS 14 6-88	Date:	16/03/20
Prototype Approval:		Date:	

Rev	Date	Change	Revised by	Approved
A	08.04.22	New Issue	KJ/JLM	



DESIGN RT	DRAWN BY RT	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED [Signature]	APPROVED [Signature]	DRAWING NO. DSK 076	REV. A SHEET 1 OF 1
DATE 03.05.20		TITLE TURNING DETAIL FOR D2891-1	SCALE 1:1
A	03.05.20	NEW ISSUE	

RELEASED
03.07.01 [Signature]



D2891-1 TURNING DETAIL

SHIPPING
LETTER TO
INFORMATION
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WORK ORDER
141324 M05
16-02-04

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